

**MICRODON MYRMICAE SCHÖNROGGE ET AL 2002
(DIPT.: MICRODONTIDAE): PRESENCE IN IRELAND CONFIRMED**

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Abstract

Collection of mature larvae and puparia of *Microdon myrmicae* Schönrogge et al, 2002 (Dipt.: Microdontidae) from a Co. Offaly locality confirms the presence of this species in Ireland.

Introduction

The cryptic hoverfly species *Microdon myrmicae* was described recently (Schönrogge et al, 2002a, 2002b), from various localities in England. It can only at present be determined from examination of features of the larvae or puparia (Schönrogge et al, 2002a; Speight, 2002a). Speight (2002b) recorded the species from Ireland, on the basis of the ecology of certain sites from which adult material of “*Microdon mutabilis*” had been collected, but pointed out that only when developmental stages of *M. myrmicae* had been found in Ireland could the presence of the species be confirmed there. Developmental stages of this *Microdon* are most conveniently available in the spring, when the mature larvae ascend to just beneath the surface of the nest of the host ant, and there form their puparia. A visit to one of the Irish localities mentioned in Speight (2002b), expressly to search for puparia of *M. myrmicae*, has proved successful, confirming the presence of this species in Ireland.

A raised bog locality for *M. myrmicae* in Ireland

In a nest of *Myrmica scabrinodis* on All Saints Bog (Co. Offaly), 19 freshly-formed puparia and six larvae of *M. myrmicae* were found (together with remains of five empty puparia in poor condition – presumably from a previous year) on 24 April, 2003. A single fresh puparium of the fly was found in another nest of *M. scabrinodis* at the same location. The record of *Microdon mutabilis* (L.) from All Saints Bog (Speight, 1990) should now be regarded as a mis-determination. Until and unless any developmental stages of *M. mutabilis* sensu Schönrogge et al (2002a) are found at the site - an occurrence which would seem highly unlikely – all adults of the *M. mutabilis* aggregate found at All Saints Bog can be presumed to refer to *M. myrmicae*.

All Saints Bog (Ir grid N0010; UTM NU3) is an unusual site, where a number of insects exhibiting relict distribution patterns in Ireland have been found. These include the grasshopper *Stethophyma grossum*, which has a few isolated populations in the Irish Midlands (Foss and Speight, 1989) but is otherwise known only in the south-west; the ladybird *Hippodamia 13-punctata* and the elaterid *Athous subfuscus* (see Speight, 1990 and 1989, respectively). For the latter two species All Saints Bog represents the only known Irish locality. It is essentially an ancient fen now largely evolved into a raised bog, but study of the peat profile has

revealed that the extensive *Betula* woodland sprawling across much of the central area of the bog has been in situ for hundreds of years, and is not a product of recent invasion triggered by partial drainage, as in many other localities. Indigenous bog woodland is rare in Ireland.

According to Schönrogge et al (2002a) *M. myrmicae* is found in England in nests of *M. scabrinodis* in tussocks of grasses. On All Saints Bog the *M. myrmicae* puparia found were in ants' nests in large tussocks of moss, in the one instance a *Sphagnum* hummock with *Vaccinium oxycoccus* twined through its crown, in the other a tussock of *Pleurozium*. Moss tussock nests of both *Lasius niger* and *Myrmica ruginodis* were also searched for *M. myrmicae* at All Saints, but the fly was found only with *Myrmica scabrinodis*. *M. scabrinodis* is extremely abundant on All Saints Bog, developing very large and populous nests, at least within and around the edges of the birch woods. Approximately ten of these nests were investigated for *M. myrmicae*, which was found in two of them. It was noticeable that the nests with *M. myrmicae* were outside the canopy of the woodland and in direct sunlight, in open but sheltered situations.

Lasius niger is frequent in and around the birch woods on this bog. It uses both moss tussocks and rotted, fallen birch branches etc as nesting sites there. It might be expected that, in these circumstances, *Microdon analis* would occur in *Lasius niger* nests in rotten wood on this site. However, that does not seem to be the case. The only adults of *Microdon* found on All Saints Bog belong to the *M. mutabilis* aggregate and no larvae of *M. analis* have been found in *Lasius* nests there. In Ireland, *M. analis* appears to be confined to a few localities in the south-west (Speight, 2000).

What is *Microdon mutabilis* (L.) sensu auctt?

While there can be little doubt that *M. myrmicae* represents a discrete taxon, validly segregated from the *M. mutabilis* of previous authors by Schönrogge et al (2002a), there is no such clarity in respect of the status of the latter taxon. Schönrogge et al (l.c.) confine use of the name *mutabilis* (L.) to the *Microdon* using *Formica lemani* as larval host in well drained grassland but, as recognised by previous authors, *M. mutabilis* occurs with a wider range of ants than just *F. lemani* and *M. scabrinodis*, and in a range of habitat situations wider than that embraced by *M. myrmicae* and *M. mutabilis* sensu Schönrogge et al (2002a) put together. For instance, *M. rhenanus* Andries, synonymised with *M. mutabilis* by Doczkal and Schmid (1999), was described from the larva and supposedly found (though not exclusively) with the ant now known as *Formica cunicularia*. The larval mouthparts of the type material of *M. rhenanus*, clearly figured by Doczkal and Schmid (1999), show a remarkable resemblance to the larval mouthparts of *M. myrmicae* as figured by Speight (2002a), and demonstrate that *M. rhenanus* is most unlikely to be the *M. mutabilis* of Schönrogge et al (2002a). However, re-examination of the type material of *M. rhenanus*, kindly carried out by Ulrich Schmid, demonstrates (Ulrich Schmid, pers.comm.) that the anterior spiracular processes of the puparium of *M. rhenanus* are not longer than wide, as in *M. myrmicae*. Unless the form of either the larval

mouthparts or the puparial anterior respiratory processes is more variable than at present recognised it would seem that *M. rhenanus* is neither *M. mutabilis* sensu Schönrogge et al nor *M. myrmicae*. At localities where *Microdon* is known to occur its puparia are by no means difficult to find in nests of the host ant species. Searching for them would seem to have suddenly become more interesting!

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Epichoristodes acerbella Walker (Lep.: Tortricidae) not new to Britain in the wild

Steven Nash and Martin Corley (*antea*: 119), in recording the above tortricid as new to Britain in the wild, have overlooked the actual first record which was given by me in this journal in 1980 (*Ent. Rec.* **92**: 33). As reported there, the moth was found at a wall-lamp in a by-road in this district, but no other has occurred since. It seems likely that the species is now fully naturalized with us, but remains a rarity.—
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